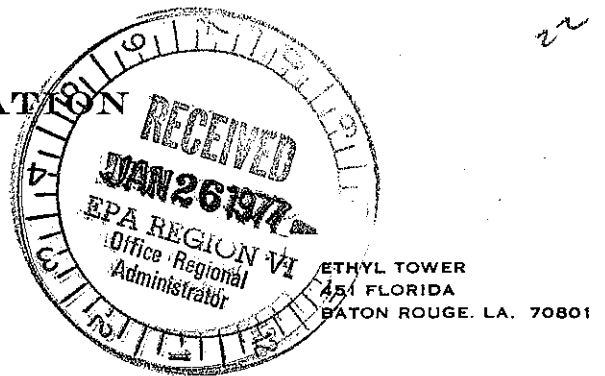


ETHYL CORPORATION

January 18, 1977



Mr. John C. White  
Regional Administrator  
Environmental Protection Agency  
1600 Patterson Street-Suite 1100  
Dallas, Texas 75201

Ref: Ocean Dumping Permit 730D009D  
General Condition No. 11

Dear Mr. White:

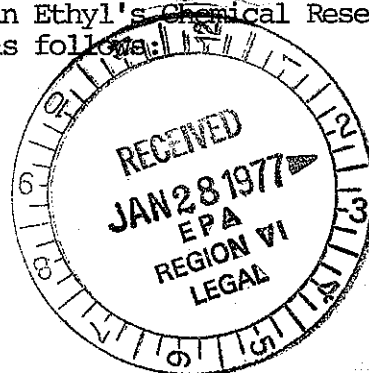
Pursuant to instructions in Permit 730D009D this is to report the information as required in General Condition No. 11 thereof concerning dumpings that were initiated during the period beginning July 1, 1976 through December 31, 1976.

- 11a Information in the records to be kept pursuant to Paragraph 10 of the General Conditions.
- 10a The material is a waste sodium-calcium sludge, a mixture of solid metallic sodium, metallic calcium and oxides of these metals plus sodium and calcium chlorides. Sodium chloride is used as fill material added first to the bottom of the containing 55 gallon drum before the addition of the waste sodium calcium sludge and then to the top. The sodium chloride fills the void spaces and provides added weight to ensure sinking the drum. Analyses are listed in Exhibit A attached.
- 10b The precise times and locations of dumpings are listed in the attached Exhibit B, Paragraph 7b.
- 10c We have no reports of any undesirable effect on the marine environment or human health or welfare in connection with the permitted dumping activities.
- 11b A summary of the reports required by Paragraph 7 of the General Conditions is given in Exhibit B.
- 11c We have no additional reports or records, covered in Special Conditions of this Permit, to submit.
- 11d A composite sample representative of the barging operations carried out under this Permit for the period July 1, 1976 ending December 31, 1976, has been analyzed in Ethyl's Chemical Research Laboratory for the parameters required as follows:

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ENFORCEMENT DIVISION

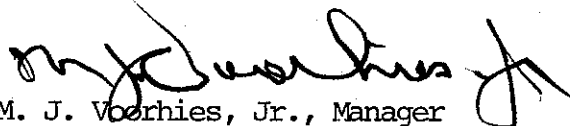
Mr. John C. White  
January 18, 1977  
Page 2

Trace Metal Content of Sodium-Calcium Waste (Composite Sample)  
(all analyses reported as mg/kg)

<u>Component</u>	<u>Limits of Detection</u>	<u>Analysis</u> <u>mg/kg</u>
Selenium	0.2	N.D.*
Arsenic	0.1	N.D.*
Beryllium	0.2	N.D.*
Vanadium	0.2	N.D.*
Nickel		0.6
Chromium		1.2
Zinc		6.4
Lead		3.2
Copper		3.9

\*Below Detectable level

Very truly yours,



M. J. Voorhies, Jr., Manager  
Production Scheduling and Distribution

GEO:kc  
Attach

CC: Mr. T. C. Coerver  
Mr. J. H. Huguet

## EXHIBIT A

### Chemical Analysis of the Material Dumped

Trip No.	No. 1	No. 2	No. 3	No. 4	No. 5
Permit No.	730D009D	730D009D	730D009D	730D009D	730D009D
Date Dumped	7/17/76	8/14/76	9/11/76	10/23/76	11/7/76
<u>Component</u>					
Sodium (Metal & Oxides)	65.58%	65.21%	64.48%	64.20%	63.30%
Calcium (Metal & Oxides)	9.00%	9.57%	10.60%	11.50%	11.70%
Oxygen (In Oxides)	5.84%	5.60%	5.33%	4.90%	5.50%
Sodium & Calcium Chlorides	19.58%	19.62%	19.59%	19.40%	19.50%
Cadmium	0.40 ppm	0.26 ppm	0.16 ppm	0.15 ppm	0.14 ppm
Mercury	<0.1 ppm	<0.1 ppm	<0.10 ppm	<0.1 ppm	<0.1 ppm

EXHIBIT BParagraph 7a Quantity of Material Dumped

Trip No.	No. 1	No. 2	No. 3	No. 4	No. 5
Permit No.	730D009D	730D009D	730D009D	730D009D	730D009D
Date of Dumping	7/17/76	8/14/76	9/11/76	10/23/76	11/7/76
Number of Drums	695	700	699	695	698

Parts Per Million of Each Constituent

Sodium (in Metal & Oxides)	655,800 ppm	652,100 ppm	644,800 ppm	642,000 ppm	633,000 ppm
Calcium (in Metal & Oxides)	90,000 ppm	95,700 ppm	106,000 ppm	115,000 ppm	117,000 ppm
Sodium & Calcium Chlorides	195,800 ppm	196,200 ppm	195,900 ppm	194,000 ppm	195,000 ppm
Oxygen (in Oxides)	58,400 ppm	56,000 ppm	53,300 ppm	49,000 ppm	55,000 ppm
Cadmium	0.40 ppm	0.26 ppm	0.16 ppm	0.15 ppm	0.14 ppm
Mercury	<0.1 ppm	<0.1 ppm	<0.10 ppm	<0.1 ppm	<0.1 ppm
Total	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000

Pounds of Each Constituent

Sodium (in Metal & Oxides)	225,612 Lbs.	225,953 Lbs.	223,104 Lbs.	220,865 Lbs.	218,709 Lbs.
Calcium (in Metal & Oxides)	30,962 Lbs.	33,160 Lbs.	36,677 Lbs.	39,562 Lbs.	40,425 Lbs.
Sodium & Calcium Chlorides	67,360 Lbs.	67,983 Lbs.	67,782 Lbs.	66,741 Lbs.	67,372 Lbs.
Oxygen (in Oxides)	20,092 Lbs.	19,404 Lbs.	18,442 Lbs.	16,857 Lbs.	19,004 Lbs.
Cadmium	0.139 Lbs.	0.090 Lbs.	0.06 Lbs.	0.052 Lbs.	0.049 Lbs.
Mercury	<0.003 Lbs.	<0.003 Lbs.	<0.03 Lbs.	<0.003 Lbs.	<0.03 Lbs.
Total	344,026 346	346,500	346,005	344,025	345,510

Total  
1726066 lbs  
783634 kg

Continued EXHIBIT BParagraph 7b Time & Location of Barging & Dumping

Trip No. Permit No.	No. 1 730D009D	No. 2 730D009D	No. 3 730D009D	No. 4 730D009D	No. 5 730D009D
<u>Commenced Dumping</u>					
Date	7/17/76	8/14/76	9/11/76	10/23/76	11/7/76
Time	0715 Hrs. CDT	0730 Hrs. CDT	0903 Hrs. CDT	0830 Hrs. CDT	0700 Hrs. CST
North Latitude	28° 9'	28° 9'	28° 09'	28° 8' 45"	28° 8' 19"
West Longitude	89° 27'	89° 29'	89° 28'	89° 27' 9"	89° 27' 27"

Ceased Dumping

Date	7/17/76	8/14/76	9/11/76	10/23/76	11/7/76
Time	1305 Hrs. CDT	1224 Hrs. CDT	1450 Hrs. CDT	1337 Hrs. CDT	1118 Hrs. CST
North Latitude	28° 9'	28° 9'	28° 06'	28° 06' 29"	28° 5' 41"
West Longitude	89° 26'	89° 24'	89° 28'	89° 22' 42"	89° 24' 13"
Midpoint when operation extended over six hours	Less than Six Hours	Less than Six Hours	Less than Six Hours	Less than Six Hours	Less than Six Hours

Paragraph 7c Departure & Return

Trip No. for Permit 730D009D	No. 1	No. 2	No. 3	No. 4	No. 5
Date Departure from Baton Rouge	7/8/76	8/12/76	9/9/76	10/14/76	11/4/76
Time Departure	2125 Hrs. CDT	1600 Hrs. CDT	1730 Hrs. CDT	1845 Hrs. CDT	1600 Hrs. CST
Date Returned Grand Isle	7/18/76	8/14/76	9/12/76	10/24/76	11/8/76
Time Returned	0200 Hrs. CDT	2200 Hrs. CDT	0100 Hrs. CDT	0030 Hrs. CDT	0105 Hrs. CST